A Multimodal Concept Map Approach to L2 Writing: Emancipating non-native English Students

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Abstract—This research paper examines the benefits of using a digital concept map approach to develop metacognitive writing skills and to empower L2 learners. The study explores how a digital concept map can help L2 learners develop metacognitive writing skills and empower L2 students at the same time. By providing students with a tool to organize their thoughts and use the multimodality the online resources offer, the digital concept map becomes a tool to give agency to L2 learners and provide them with the tools to communicative within the various target language discourses they will interact with. This paper is relevant to L2 writing, methodology and multimodal literacies.

Index Terms—Concept map, digital, empower, writing.

I. INTRODUCTION

Second language writing is for many students a process through which they feel a loss of identity and betrayal to their primary culture and language. L2 writers feel a lot of pressure to comply with the conventions of the academic discourse and the discourses of the communities they need to interact with. They might have feelings of refusal, frustration, disempowerment, and displacement as they are prescribed linguistic, cultural and rhetorical conventions of the target language. Lee and McGuire conducted a case study of two ESL South Korean students at a University in Canada and the challenges they had when trying to accommodate to the new discourses and literacy practices of the target language. One of the excerpts from one of the students,

Seong-Jin, shows how [1] "his sense of self had shifted from that of a self-confident writer with aspiration to be a creative writer to that of someone who felt like a "dummy" and inarticulate in academic writing". They further explain that in "Seong-jin's case, two contradictory discourses are both equally dominant and one suppresses the other. This internal conflict appeared to paralyze and prevent him from completing his homework assignment" (p.363) [2]. This example shows there is a sense of loss of identity, disempowerment and confusion. Therefore, there is an urgent need to find the best pedagogical approaches that can lead L2 writers to an attainable and feasible membership to the target language linguistic and discourse conventions without losing their own voices. This paper explores how a digital concept map pedagogical approach can help L2 writers develop metacognitive skills to aid in the organization of the learners' thoughts and how the digital and online resources can provide for negotiation and L2 writer's agency.

II. SECOND LANGUAGE WRITING CHALLENGE

Writing is a very complex process that involves a public interchange that is placed within a context, and this act requires understanding of others and their discourses. It is also a process in which metacognitive strategies are essential to plan, organize, revise and evaluate the end result of the process, a text. In the case of second language writing, this becomes more complicated since learners need to know the linguistic components as well as the L2 discourse communities. These community discourses have different rules, viewpoints, and expectations from the one outside their dominions. Bizzel states that "Following these language-using conventions shapes participants' way of looking at the world - their worldview - including notions of what's real, normal, natural, good, and true". (p.72, 2006) [3]. Second language learners need to obtain membership to those discourses, and this is a big challenge since the language (s) and cultures they bring with them will unavoidably clash with the L2 forms and conventions. This clash between cultures usually entails a process of enculturation that involves assuming new identities in order to comply with the requirements and imposition of the new linguistic and cultural norms.

Some composition scholars advocate for a smooth transition to these new environments, Cushman (2006) believes that "Writing teachers are in a position to, at the very least, explain to students how they are being written through this displacement, and at the very best, they are in a position to facilitate student's revisions of themselves in this place". (p.361) [4]. However, this process should not be about disempowering or making a smooth transition from the known to the unknown. It should be a process of linguistic and cultural blending. In the last few years, several composition theorists have started to question whether alternative discourses should be accepted as appropriate in order to emancipate L2 learners. Instead of imposing on them an academic discourse that they need to learn, we should allow them to negotiate their own voices as they navigate between L1 and L2. In fact, multilingual students bring with them already mixed discourses, Canagarajah (2011, p.3) [5] states that "translanguaging is fully developed among multilingual students in their home and community contexts that there is nothing further for the

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school to add, other than provide a context for it to be practiced". The meeting of these cultures and languages are the contact zones, Pratts (2010) defines these zones as "social spaces where cultures meet, clash, and grapple with each other, often in contexts of asymmetrical relations of power, such as colonialism, slavery, or aftermaths as they are lived out in many parts of the world today" (p. 519) [6].

The creation of these contact zones is an essential element to free L2 writing students from the disempowerment created by prescriptivism. The results of negotiating discourse conventions can eventually create alternative discourses that will reflect the reality of teaching second language writing in the 21st century, a combination of cultures, languages and dialects. English can no longer be seen as a pure language, it is a combination of multiple Englishes and multiple cultures. According to Canagarajah "English should be treated as a multinational language, one that belongs to diverse communities and not owned only by the metropolitan communities" (2006, p.4) [7]. Second language writers have the right, which has implicitly been taken away, to use English to compose based on their values, their needs, purposes and interests.

A. The Sapir-Whorf Hypothesis

This hypothesis states that culture affects the way learners think and organize their ideas. In other words, thought patterns are influenced by culture. Therefore, non-native English speakers cannot be taught in the same way native speakers are. The cultural and diverse backgrounds of ESL/EFL students imply that the way they organize their ideas differs from others depending on their cultural background. Kaplan (1966) states that 'The fact is that this diversity affects not only the languages, but also the cultures, that is to say the whole system of institutions that are tied to the language.... [and] language in its turn is the effect and the expression of a certain world view that is manifested s in the culture". (p. 12) [8]. Kaplan in his study (1966), analyzed many writing samples from students from various cultures, and he came to the conclusion that the thought patterns and the way they organize and develop ideas are very different from the English language. Kaplan states that the though patterns of native English speakers 'is a sequence that is dominantly linear in its development" (p.13) [9]. However, the pattern of though and paragraph development is different for L2 speakers of other languages and cultural backgrounds. Wintergerst and MacVeigh in their book 'Culture: Practical Approaches to Intercultural Communication (2013) mention the Saphir-Worth Hypothesis [10] "as a way to explain how language, culture and cognition are related, and the challenges these assumptions bring to L2 teaching". A digital map approach, which is a graphic organizer, can be a tool that L2 students and teachers can use to provide a more uniformed way to develop the outline or basic elements of the development of a paragraph, and subsequently the whole text. Digital concept maps can help learners develop metacognitive and macro skills which can help them organize their taught patterns in a way that is acceptable in the target language discourse communities.

III. DIGITAL MAPPING AND METACOGNITIVE SKILLS

Digital concept maps are graphic organizers that can help develop and enhance metacognitive strategies, which include activities such as planning, organizing, monitoring, and evaluating. Thought is the basic component of writing, and students need to go through several metacognitive stages to produce a text. Flowers and Hayes (1981) state [11] that one of the first steps is to plan, to generate ideas, organize them and establish goals. After the planning stage, writers need to start composing, putting their ideas in more concrete forms. During the last stage, students need to review, evaluate, and go back to make changes as many times as necessary. It is not a linear process where each stage needs to be completed in order to go to the next one. The cognitive process is fluid, since writers are always reviewing, making changes, and re-stating goals. Through these metacognitive steps, L2 writers are also transferring previous knowledge from their L1 to L2 based on the genre, rhetoric and other conventions that the writing task demands. Metacognitive strategies are also essential tools that lead L2 writers to successfully negotiate to create their own texts. Digital Concept maps offer an online contact zone where learners can structure their thoughts, shape knowledge, evaluate, and revise following a top-down approach, in which a broad more inclusive concept is broken down into more specific and concrete ideas.

In addition, concept maps provide a wide range of online resources that allow for a multimodal approach where words and semiotics can be used to represent concepts and ideas. The Multimodality of digital maps offers a platform that incorporates visual images, charts, pictures and photos that convey messages that words-only cannot express. The writing process should reflect the writers' world view, and these concept maps offer the means to produce texts that represent the students' identities. The digital software-based concept maps allow students to plan and compose their ideas using different shapes, colors, background images, symbols, fonts and sizes. They can customize their writings by inserting pictures, links from the internet or their icon library. They can use icon markers and callouts with different forms and colors, create power points and insert them in their texts. They can also convert their maps to word documents, excels and power points and upload them to the learning online environment used by their teachers. In addition, students can insert photos, pictures or personal keepsakes about experiences they have had previously in their maps in order to personalize them. According to Dwo Ryanti (2015) one of, the ways in which L2 writers express their voice is through textual positioning which "are manifested in the preferences of L2 writers to use particular semiotic modes, such as the use of mathematic symbols and different font sizes to put emphasis". (p38),[12] It is the interaction of all these textual modes and resources that sets the grounds for the construction of students' own voices in their texts. This personalization of the text is what gives agency to the L2 writer.

There are many concept map software programs that can be downloaded for free; some are Mind Maple Lite, CMap, XMind 7.5 among others. Alon Friedman (2008), in his article "Concept Mapping in Knowledge organization through a Semiotic Lens", (p. 4) says that [13] "Concept Mapping consists of text, images, and links, all of which describe the relationship between specific nodes and arcs that yield the semiotic essence of any given presentation" These on line maps are very powerful tools that permit learners to personally get engaged in the production of their texts. By allowing students to get personally involved and imprinting their uniqueness on their texts, they will be able to find their own voice, instead of speaking through the voices of the other. The semiotics and other modes of expression used in the mapping process is what make the representative of the multiculturalism texts and multilingualism that these learners embody.

A digital concept map approach to writing does not only give agency to L2 writers but it also offers thought organizer tools that can help students in the stages of brainstorming, planning, organizing and reviewing. The reviewing process, allows for peers-feedback and negotiation of the translanguaging and other non-verbal features they use to create their texts..

IV. MULTIMODALITY AND SEMIOTICS IN DIGITAL CONCEPT MAPPING.

Digital Concept maps are multimodal because they use a wide range of features and tools to convey meaning in a non-prescriptive manner. This goes in opposition to the more traditional use of prescriptive concept maps, sometimes hand-written, as tools for learning. In light of all the technological advances of the 21st century, the digital concept maps provide for new ways of learning where ideas and connections can be organized vertically, horizontally or laterally. In addition, students can incorporate pictures, symbols, numbers and signs, sounds and animations to create their texts. [14] "The analysis of dynamic digital maps where multilayering, hyperlinking and the addition of sound and animation files might be significant in the subtleties of meaning they convey" (Preston 2007, p.1,). It is through this process that writing becomes more than just words. Writing, in this context, is multimodal with semiotic, objects, other texts, oral, and visual modalities; all resources available to students on the digital page. They can organize and create the text according to how they see the world and not how they are told it is. It is in this context that students can also express themselves by doing code and cultural meshing.

V. DIGITAL LEARNING ENVIRONMENTS

Even though most of the concept software programs allow for all learners to be invited to share the same program and platform, it is important to give students the freedom to choose the digital program they feel more comfortable with. Some of the platforms and links are displayed in different ways and it is important not to impose on students the type of software they should use. As globalization and technology have changed the world, the learning environment is no longer limited to a physical space like the classroom. There are now virtual environments where learning and teaching take place. Most institutions of higher education have an online platform to allow for continuing teaching and learning outside the classroom. "Perhaps a better way to think of 21st century learning environments is as the support systems that organize the condition in which humans learn best systems that accommodate the unique learning needs of every learner and support the positive human relationships needed for effective learning" (Partnership, 2009, p. 3) [15]. It is essential to have a common learning environment in order to use the concept-map approach, it is in this online safe space that the contact zones between L1 and L2 interact and provide L2 writers to negotiate and develop their own writings. Desire 2 Learn, Moodle and Blackboard among others, are examples of learning environments of many institutions. Students can use the concept map software programs to organize and create their texts, which can be converted to a Power Point, a Word Document, Excel or an e-poster, and they can upload them to the common internet learning environment to allow peers to read it and provide feedback. Based on peers' reviews and feedback, students can negotiate their choices and modify their texts if they deemed it necessary and appropriate

VI. CONCLUSION

With globalization and all the technological advances, the world is now more interconnected than ever before. People are in constant communication and interaction with other people from other parts of the world. English has become the lingua franca to do business transactions, finalize contracts, and make policy changes with people with a wide range of cultural and linguistic backgrounds. English is a constant state of flux, and it cannot be considered 'pure' anymore. In this state of flux, English is a mixed of the Englishes used by people from all over the world. Therefore, it is time to change the way we teach composition to nonnative English speakers. It can no longer be a prescription of language and cultural conventions, since these conventions are already mixed with other community discourses inside and outside the United States. A digital concept map approach can serve as a means to allow students to organize their ideas in their own ways, and to express themselves by using the semiotics available to them in the concept map software programs. They can mix their home and academic discourses and code-blend as they navigate from L1 to L2 discourse conventions. This can be achieved by the advanced organizers the digital maps offer, that help develop metacognitive strategies where knowledge from L1 can be transferred to the L2 writing task. The digital concept map also provides a platform for learners to brainstorm, plan, set goals, compose, revise and evaluate. At the same time, the multimodality this approach offers such as the use of semiotic elements, words, oral and visual modes and ecological resources, allow second language writers to produce texts that represent their identities. Furthermore, the final text can be uploaded to the learning environment used in class, where students create an online contact zone open for sharing and negotiation among peers and teachers.

This study paves the way for a quantitative research project that will shed light on the benefits of using a digital concept map approach as a tool to emancipate and empower non-native English writers as well as help them develop metacognitive writing skills.

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